AMENDMENTS TO THE SPECIFICATION:

Please replace the paragraph beginning at page 1, line 17, with the following rewritten paragraph:

--There are two types of conventional solid polymer electrolytes: (1) polymers containing metal salts and (2) polymeric gels containing electrolyte solutions. With the first type, complexes of metal salts and polar polymers such as PEO (polyethylene oxide) form, and transport of lithium and other such ions accompanies the molecular motion of polymer chains. Such solid polymer electrolytes have high mechanical strength, but their ionic conductivity at room temperature has a limit on the order of [[10_{-4}]] 10^{-4} S/cm. It is therefore necessary to lower the molecular weight or to soften the polymers in order to intensify the molecular motion of the polymer chains, but this approach ultimately leads to a reduction in mechanical strength. With the second type, the contained electrolyte functions as an ionic conductor and preserves the polymers as solids. The ionic conductivity of such solid polymer electrolytes is on the order of [[10-3]] 10^{-3} S/cm, that is, falls within a practicable range, but a disadvantage is that the polymers are plasticized by the electrolyte, and their mechanical strength is lowered.--

Please replace the paragraph beginning at page 16, line 21, with the following rewritten paragraph:

--Examples of use in some electrochemical applications include lithium primary cells, magnesium cells, and other primary cells, ~~lithum~~ lithium secondary cells; polymer cells and other secondary cells; and fuel cells.--

Please replace the paragraph beginning at page 16, line 26, with the following rewritten paragraph:

--100 parts of tetraethoxysilane (manufactured by Sinetsu Silicone), 52 parts of water, and 133 parts of ethanol were allowed to react for 24 hours at 80° C under reflux conditions in which the supply of moisture contained in the outside air was shut off with the aid of a calcium chloride tube, yielding a partially gelated solution of a metal oxide precursor. An expanded porous polytetrafluoroethylene film (manufactured by Japan Gore-Tex Inc.; thickness: 25 μm; pore diameter: 0.5 μm; ~~thickness: 40 μm~~; porosity: 92%) was impregnated with this solution and immersed in warm water (60° C) for 5 hours to complete the gelation. The gelled product was dried for 30 minutes at 150° C, yielding a silica gel complex extended porous polytetrafluoroethylene film in which the exposed surfaces, including the inner surfaces, of the porous body were covered with the silica gel. This composite film retained at least 80% of the voids of the original porous film and was highly porous. --